

CLAIMS:

1. Method for fabrication of an electric incandescent lamp, comprising the steps of:
 - coiling a first coil of a wire having diameter d around a first mandrel having diameter $M1$ with a first pitch and a first number of turns;
 - 5 - winding said first coil around a second mandrel having diameter $M2$ with a second pitch and a second number of turns to form a coiled coil filament;
 - arranging means for electrically and structurally mounting a filament within a light permeable envelope;
 - arranging the coiled coil filament within the envelope, coupled to and
 - 10 supported by the means for mounting;
 - hermetically sealing said envelope,

characterized by heating the coiled coil filament above its recrystallization temperature within the envelope for recrystallization of said coiled coil.
- 15 2. Method according to claim 1, the filament wire having diameter d , wherein the primary and secondary winding have primary and secondary mandrel-to-wire ratios $Y1$ and $Y2$, wherein:

$$Y1 = M1/d \geq 3; \text{ and}$$

$$Y2 = M2/(M1 + 2d) \geq 3.$$
- 20 3. Method according to claim 1 or 2, comprising the further steps of:
 - annealing the first coil at a first annealing temperature after coiling thereof;
 - cleaning the coiled coil filament in a wet gas;
 - heat treating the coiled coil filament in a dry gas atmosphere to release stresses
 - 25 therein;
 - removing the first mandrel by inserting the coiled coil filament in acid.
4. Method according to claim 1 or 3, wherein $Y1 = M1/d > 4$ and $Y2 = M2/(M1+2d) > 4$.

5. Method according to claim 1 or 4, wherein $Y1 \leq 8$ and/or $Y2 \leq 8$.
6. Electric incandescent lamp, comprising:
- 5 - a hermetically sealed light permeable envelope;
- means for electrically and structurally mounting a filament within the envelope; and
- a coiled coil filament coupled to and supported by the means for mounting, comprising a filament wire having diameter d , wherein the primary and secondary winding
- 10 have primary and secondary mandrel-wire ratios $Y1$ and $Y2$, wherein:
- $Y1 = M1/d > 4$; and
- $Y2 = M2/(M1 + 2d) > 4$,
- wherein $M1$ is the primary mandrel diameter and $M2$ is the secondary mandrel diameter.
- 15 7. Lamp according to claim 6, wherein $Y1 \leq 8$ and/or $Y2 \leq 8$.
8. Lamp according to claim 6 or 7, wherein $Y1 \geq 4.5$ and/or $Y2 \geq 4.5$.
9. Lamp according to claim 6, wherein $Y1 \leq 6$ and/or $Y2 \leq 6$.
- 20 10. Lamp according to any of the previous claims, wherein the envelope is filled with a gas comprising halogen.
11. Lamp according to any of the previous claims, wherein the wire is a tungsten
- 25 wire.